

# PERMIT APPLICATION PACKAGE



®

**OSAGE NATION UIC**  
**FIRST NATIONAL BANK BLDG.**  
**100 W. MAIN ST., STE. 304**  
**PAWHUSKA, OK 74056**  
**Tel: 918/287.5333**  
**Fax: 918/287.5581**

Most injection wells which are currently operating in Osage County are "Authorized By Rule" (ABR) and need not apply for an individual permit. However, wells in the following categories must apply for and receive an EPA permit to construct or operate oil and gas related injection wells in Osage County:

1. Any well constructed or completed after December 30, 1984;
2. Any **production** well converted to an injection well after December 30, 1984;
3. In a utilized operation, any new well which is not authorized by a previous permit;
4. Wells which the operator wishes to operate outside rule requirements (e.g., at a higher pressure than authorized by rule.);
5. Wells which were authorized by rule but have not been identified as one of the following:
  - a. being in violation of the rule;
  - b. no longer within the category of rule authorized well;
  - c. needing additional restrictions to protect underground source of drinking water (USDW's).\*\*\*

Please include or reference all the information requested in this package so that we may quickly process your application without delay. A copy of this application package will be immediately forwarded to the Osage Agency BIA and EPA. For additional copies of the permit package, please visit our website @ [www.osage-tribe.com](http://www.osage-tribe.com) and click on the Environmental & Natural Resources tab located on the right side of the page under Department Directory.

At any time, if you have questions about the information requested, please call our office at 918.287.5333. We will be happy to assist you.

*\*\*\*Operators of wells in this category will receive a letter from the Dallas EPA directing them to apply for a permit.*

To be completed by UIC Office

Well Name & No.: \_\_\_\_\_

Permit #: \_\_\_\_\_

Date Rec'd: \_\_\_\_\_

### PERMIT APPLICATION CHECKLIST

	Attached	Not Attached	
1.	_____	_____	Osage Form 139, "Application for Operation or Report on Wells.
2.	_____	_____	Osage Form 208 "Completion Report".
3.	_____	_____	Copy of Plat Map showing wells within 1/4 mile radius of proposed well.
4.	_____	_____	Tabulation of data on wells within 1/4 mile radius including well name, company name, date drilled, depth, exact location, status of well & record of pluggings/completions.
5.	_____	_____	Injection well schematic showing total depth and plugback depth, depth from top & bottom of casing(s) & cemented intervals, cement amount, depth & size of casing & tubing, including depth of packer.
6.	_____	_____	Operating data including: type of well; maximum and average injection rate; source and analysis of injected fluids including TDS, chlorides and additives; major geological formation with top bottoms.
7.	_____	_____	Geological data of the injection zones including name(s), total thickness, porosity, lithologic description, permeability, injection depth, reservoir pressure/fluid level. Address the presence or absence of faults.
8.	_____	_____	Public Notice verifications, consisting of a list showing names, addresses, and date that notice of permit application was given or sent to the surface land owner, tenants of land where the injection well will be located, each operator of a producing lease within 1/2 mile of the well location.
9.	_____	_____	All available logging & testing data of the well attached.

	Attached	Not Attached	
10.	_____	_____	Copy of surety bond filed with the BIA superintendent (25 CFR §266.6).
11.	_____	_____	Certification form signed by the well owner/operator or authorized representative. (Authorization must be attached & in writing.)
12.	YES	NO	Has the applicant declared any part of his submission as confidential? {147.2907}
13.	YES	NO	Is the well currently Authorized by Rule? If yes, Inventory No._____.
14.	YES	NO	Was the applicant required by EPA to apply for a permit?
15.	YES	NO	Is the permit applicant the owner/operator. (Circle one or both.)
16.	YES	NO	Has the applicant requested emergency authorization to inject? If yes, attach emergency checklist.
17.	YES	NO	Berms and all facilities associated with saltwater system adequate?

\_\_\_\_\_  
Pawhuska Technician/Administrative Review

\_\_\_\_\_  
Date

\_\_\_\_\_  
6W-SE Reviewer

\_\_\_\_\_  
Date



Owner/Operator: \_\_\_\_\_ Permit# \_\_\_\_\_

**PERMIT TRACKING PROCEDURE CHECKLIST**

<u>Date</u>	<u>Initial</u>	
_____	_____	Application logged in; Number Assigned & Receipt Date Stamped on Application.
_____	_____	Application reviewed for completeness.
_____	_____	Surety bond attached.
_____	_____	Operator notified of incompleteness.
_____	_____	Application terminated due to no response within 30 days.
_____	_____	Application determined complete & file started on well.
_____	_____	Completion letter mailed to operator.
_____	_____	Transmitted copy to BIA & EPA.
_____	_____	RBDMS data entered & well schematic prepared.
_____	_____	Date of 6-W Signature.
_____	_____	Draft Permit, Statement of Basis, Public Notice & Letter of Intent signed & mailed to operator & BIA.
_____	_____	Data Entry Accomplished.
_____	_____	Public Notice submitted to newspaper.
_____	_____	Public Notice publication verified.
_____	_____	Comment Period Ends.
_____	_____	Comments reviewed & 6W decided whether to hold public hearing. <input type="checkbox"/> YES <input type="checkbox"/> NO
_____	_____	Permit Finalized & Response to Comments prepared. (IF REQUIRED)
_____	_____	Final Permit Approved; Returned for concurrence if different from Draft Permit.
_____	_____	Final Permit, Cover Letter to Operator; Responsiveness Summary, etc. sent to applicant, Osage UIC & BIA.
_____	_____	Responsiveness Summary including Final
_____	_____	Permit decision mailed to appropriate parties.
_____	_____	Permit effective date: _____
_____	_____	Complete inventory data sheet & complete data entry.
_____	_____	Permit appealed to Administrator? <input type="checkbox"/> YES <input type="checkbox"/> NO
_____	_____	Proof of MIT mailed to Dallas.
_____	_____	Notice to operator authorizing injection.

Revised March 2015

**BUREAU OF INDIAN AFFAIRS  
OSAGE AGENCY  
WORKOVER PERMIT**

LESSEE: Chaparral Energy  
PERMIT No. # 16G06427023

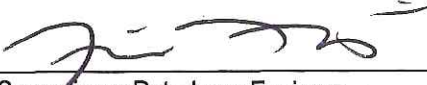
APPROVAL DATE 2-19-16  
WELL No. 6W  
LEGAL: SE 11-27-05

This permit shall remain in effect for two (2) years from date of approval or until the end of the lease, whichever occurs first. This permit is approved under the following conditions:

1. The work described in the attached Form 139 is approved subject to the following conditions.
2. That **within 10 days** following completion of work done, a supplemental report on Form 139 shall be submitted to this office detailing the work performed and the results obtained.
3. The above mentioned report shall contain details of perforating, stimulation (acidizing and/or fracturing), depth of any bridge plugs, cement retainers and/or packers, and any other relevant work performed on the well.
4. The furnished report shall contain a comparison of production or injection rate before and after the permitted work. Injection information should include both rates and pressures, while production wells should show oil, gas and water production rates.
5. If any cementing is authorized under this permit, copies of cement tickets showing amount and type of cement used, listing any additives to the cement, and specifying who performed the cement work shall be included with the report, and the report shall clearly describe the cementing work done.
6. Should an electrical log of any type be run during the work authorized by this permit, or should any samples of rock and or reservoir fluid be taken, copies of such logs, and/or the analyses of such samples shall be furnished to this office.
7. All work performed under this permit shall be done in accordance with all applicable Federal Regulations and no release of fluid into the environment is authorized.
8. The conditions contained in Attachment A are hereby incorporated by reference.

Prepared by: 

Date: 2/9/16

Recommended by:   
Supervisory Petroleum Engineer

Date: 2/17/16

Approved by:   
ACTING Superintendent

Date: FEB 19 2016

## **Bureau of Indian Affairs**

Osage Indian Agency  
Pawhuska, OK 74056

### **Permit Downhole Conditions of Approval**

#### **Re-Entry and Conversion to Injection Well**

Operator: Chaparral Energy  
Well Name: North Burbank Unit 16-6W  
Legal Description: SE Section 11, T27N R5E

1. Per EPA instruction, 5 days prior to beginning operations the EPA, Osage ENR and BIA-Osage Indian Agency (BIA-OIA) shall be notified. Notify the EPA Field Inspector by phone at 918-605-1643 or 918-292-8652.
2. Lessee will Provide EPA field inspector and BIA-OIA PE or PET with the procedure in which the conversion will be done including all injection zones, anticipated pressure, fluid volume and flowrate, type of zone isolation, type of injection tubing used, and all cementing programs.  
**\*Please note: All well conversions should be done under EPA guidelines and UIC programs**
3. Any operation beyond well conversion will require further approval by the EPA per EPA instruction.
4. Within 10 days after completion of conversion, Lessee shall submit Form 139, Work Completed, to the Superintendent. The report must show at least the following:
  - Updated wellbore schematic
  - Completion report
  - Results of workover
  - Injection rate, pressure, and cumulative volume, observed weekly for disposal and monthly for injection
  - Injection zones
  - Methods used to isolate injection zones
  - Anticipated ground water monitoring
  - Depths of any plugs left in the wellbore
  - Cementing programs: Cement quantities, types of cement, and cement additives used
  - Results and type of Mechanical Integrity test
  -
5. This approval does not alter any other Conditions of Workover Operations.

#### **Contact Information**

Jeff Hunt  
Engineering Branch Chief Office:  
(303)-842-4538  
jeffrey.hunt@bia.gov

Janelle McLean  
Petroleum Engineer  
Office: (720)-407-0622  
janelle.mclean@bia.gov

Fionna Frazier  
Petroleum Engineer  
Cell: 720-231-4141  
fionna.frazier@bia.gov



United States  
Department of the Interior  
Osage Indian Agency  
Pawhuska, Oklahoma

Res/Now Rest: Perm: 1 NO: 1600427023

Date: October 29, 2015

**COPY**

**Application For the Operation or Report on Wells**

North Burbank Unit Tract 16

OS #

(Commencement money paid to whom)

(Date)

(Amount)

Well No.: 6W is located 980 Ft. from S line and 979 Ft. from W line  
SE/4 Sec. 11 27N 5E Osage County, Oklahoma  
( $\frac{1}{4}$  Sec. & Sec. No.) (Twp) (Range)

Lat/Long 36.82826 / -96.73079

The elevation of the ground level above sea level is 1132.3 Ft.

**Use This Side to Request Authority for Work**

(Three Copies Required)

**Notice of Intention To:**

- Drill..... ☐  
Plug..... ☐  
Deepen or plug back. ☐  
Convert..... ☒  
Pull or alter casing.... ☐  
Formation Treatment. ☐  
..... ☐

**Details of Work**

Drilling applications will state proposed TD & horizons to be tested. Show size & length of casings to be used. Indicate proposed mudlogging, cementing & other work.

Plugging applications shall set forth reasons for plugging & detailed statement of proposed work.

Plugging will not commence until 10 days following approval date unless authority granted for earlier commencement.

A \$15.00 plugging fee is also required with each application to plug.

0 Bbls oil 0 Bbls water in 24 hrs

Re-enter well and convert to injection.

I understand that this plan of work must receive approval in writing of the Osage Indian Agency before operations may be commenced.

Lessee: Chaparral Energy, L.L.C.

Signature: Leigh Kuykendall  
Leigh Kuykendall

Title: Engineering Tech Specialist

Address: 701 Cedar Lake Blvd., Oklahoma City, Oklahoma 73114

**Use This Side To Report Completed Work**

(One Copy Required)

**Character of Well (oil, gas or dry) Injection**

Subsequent Report of:

- Conversion..... ☐  
Formation Treatment. ☐  
Altering casing..... ☐  
Plugging Back..... ☐  
Plugging..... ☐

**Details of Work & Results Obtained**

Work commenced: \_\_\_\_\_

Work completed: \_\_\_\_\_

(Continue on reverse if necessary)

**This block for plugging information only**

**Casing Record**

Size	In Hole When Started	Ampl. Recovered	If Parted Depth	How

Original TD \_\_\_\_\_

Lessee: \_\_\_\_\_

By: \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2011.



Locate old wellbore and install tinhorn around well. PU 250' of 13 3/8" 61# J-55 csg and wash and clean out mud in original hole to 250'. RU cementers and pump 200 sx Class C w/4% bentonite, circulate to surface. WOC. RIH w/12 1/4" bit to 714' (top of old 8-5/8" csg), condition hole, POH. RIH w/7-7/8" tapered mill and dress old 8-5/8" csg. Continue RIH to 1500', POH. RU cementers and cement surface csg 350 sx Class C w/6% bentonite. Circulate cement to surface. WOC. Cut off csg and install wellhead. RIH w/7-7/8" bit, drill out shoe and clean out to 2560' (top of old 7" csg). C&C hole w/9# mud. Mix and pump dense cement plug 2560'-2350' (75 sx Class C), POH. Run 7-7/8" bit and bent motor, tag cmt (TOC must be above 2400'), drill w/motor to 3250'. C&C hole. RIH w/5.5" 15.5# J55 csg w/DV tool @ +/- 2000' (over Layton formation). RU cementers, mix & pump 1st stage w/200 sx Class C neat. Drop plug, bump plug. Open DV tool, break circulation. Pump 2nd stage 250 sx 50/50 poz, circulate cement to surface. MIRU Workover rig and reverse unit. Test BOP. PU 4-3/4" bit, DCs and 2-3/8" workstring. Tag DV tool. Drill out DV tool and test to 1000#. Continue RIH w/bit, tag float collar. Drill out float collar and cement to shoe. Do not drill out shoe. Circulate clean and POH, LD workstring and BHA. RU Wireline, run PND 2250'-3250'. Run GR/CCL/CBL from 3250' to surface. Perforate per geologist recommendation. Set 5-1/2" AS1-X pkr w/pump out plug on wireline 25' above top perf. PU 2-3/8" TK lined tbg, tag pkr, space out w/subs. Circulate hole w/packer fluid. ND BOP, NU wellhead, test to 500 psi. Acidize well w/4000 gals 15% HCl and ball sealers. Displace w/15 bbls water. Verify authorization to inject has been received from EPA. MIT well before putting on injection.



**Bureau of Indian Affairs, Osage Agency**  
**Permit Conditions for Drilling Operations**  
**ATTACHMENT A - Osage Form No. 139**

<b>Date Prepared:</b>	02/09/2016	<b>Type of Action:</b>	Workover		
<b>Lessee:</b>	Chaparral Energy, LLC	<b>Permit Number:</b>	16G06427023		
<b>Well Number:</b>	16-6W	<b>Lease Name:</b>	North Burbank Unit		
<b>Legal Description:</b>	SE	11	27	5	
	Quarter	Section	Township(N)	Range(E)	

**Bureau of Indian Affairs, Osage Agency**  
**Conditions for Workover Operations**  
**ATTACHMENT A – Osage Form No. 139**

The following forms must be kept at the project site at all times during the workover operation(s): (1) the Osage Agency Form No. 139, (2) Attachment A for Osage Form No. 139 which identifies all of the conditions of approval of workover operations in Osage County (listed below), and (3) the Workover Review form which will be provided to the Lessee/Operator upon confirmation of approval by the Agency.

**General Requirements**

All lessees must comply with the requirements of 25 CFR 226, including but not limited to:

- § 226.22 Prohibition of Pollution.
- § 226.33 Line Drilling – Prohibiting location of any well or tank battery within 200 feet of a public highway, established watering place, or building used as a dwelling, granary or barn unless prior written permission is granted by the Superintendent.
- § 226.19 Use of Surface Lands – Lessee must conduct operations in a workman like manner, commit no waste and allow non to be committed upon the land, nor permit any unavoidable nuisance to be maintained on the premises under his/her control.

All lessees must comply with, and obtain any necessary permits or authorizations required under the federal Clean Water Act, Clean Air Act, Safe Drinking Water Act, Endangered Species Act and other applicable federal laws.

In addition, the following standard Bureau of Indian Affairs (BIA) Osage Agency Best Management Practices (BMPs) shall apply, unless the Superintendent has given prior written approval of either 1) an exemption to a specific standard BIA Osage Agency BMP, or 2) equivalent set of BMPs developed by the Lessee and incorporated into the Environmental Assessment covering said lease(s) and permits(s). Any set of BMPs developed by the Lessee must be adequate to support a Finding of No Significant Impact without the need to have an ongoing, mitigation and monitoring plan.

**Bureau of Indian Affairs, Osage Agency**  
**Permit Conditions for Drilling Operations**  
**ATTACHMENT A - Osage Form No. 139**

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	Quarter	Section	Township(N)	Range(E)	

**STANDARD BMPS**

The following BMPs shall be followed by lessees, their agents, operators, and contractors:

1. Avoid impacts to National Register-eligible or unevaluated cultural resources on well sites and access roads. If cultural resources are discovered during construction or operation, stop work immediately, secure the affected site, and notify the BIA and Tribal Historic Preservation Officer. In the event of a discovery, work in that area shall halt and not resume until written authorization to proceed has been received from the BIA. All surface disturbances must be kept within the proposed ground disturbance area described in the EA. Expansion or relocation of the well pads, access roads, or other implementation of additional activities not included in the approved EA is prohibited unless an appropriate cultural resources survey has been submitted, determined adequate, approved by the BIA Osage Agency, and all appropriate permits have been obtained.
2. Avoid or minimize soil and vegetation disturbance. Avoid removal of or damage to trees, shrubs, and groundcover to the extent possible. Avoid or minimize alteration of the natural topography, and limit activities on steep slopes.
3. Erosion control measures are required for the duration of the construction, drilling and completion phases of the project. Erosion control measures must effectively prevent or minimize the movement of soil, debris or contaminants from the well site to adjacent lands and waterways.
4. All vehicles and equipment must utilize and stay confined to existing and new roads described in the approved EA. These roads must be maintained and upgraded as needed according to BIA direction and agreements between the operator and surface owners.
5. Tank batteries must have a Spill Prevention and Control and Countermeasure Plan (SPCC) in compliance with EPA Regulations under 40 CFR Part 112. A fluid impermeable secondary containment dike/berm must be constructed around any tank battery and facilities according to 40 CFR 112.7. The dike/berm and entire containment area must be graveled. No water collected within the secondary containment shall be discharged. In accordance with the SPCC plan and the BIA regulations, the Lessee will immediately notify the BIA of all spill incidents.
6. No venting or flaring of gas is allowed unless prior written approval of the BIA Osage Agency Superintendent has been obtained.



**Bureau of Indian Affairs, Osage Agency**  
**Permit Conditions for Drilling Operations**  
**ATTACHMENT A - Osage Form No. 139**

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<b>Legal Description:</b>	SE	11	27	5	
	Quarter	Section	Township(N)	Range(E)	

7. Store and label chemicals properly (including secondary containment). Do not store equipment or chemicals onsite if they are not being used on site. Do not leave open containers of chemicals or wastes on site.
8. Keep sites clean and free of any litter, trash, old equipment, contaminated soil or unused containers. Promptly dispose of any wastes at appropriate recycling facility, approved landfill or other approved location. Remove any unused equipment not necessary to the operation of the lease after drilling activities have been completed.
9. If the well is successful, all production equipment, facilities and tanks including well-head and above-ground piping/equipment shall be properly enclosed to exclude livestock if present.
10. All pits (including tank batteries contained within a dike/berm) must be enclosed with a fence of at least four strands of barbed wire, or approved substitute. All earthen pits to be used for storage of salt water or other deleterious substances must be lined with an impermeable layer to prevent contamination of soils and groundwater. Temporary pits must be filled and leveled immediately upon completion of the activity.
11. To the extent possible, minimize disturbance to land owners, wildlife, and natural resources due to noise, excessive traffic, dust or other impacts associated with operations.
12. Do not conduct activities within stream channels or wetlands without proper authorization, and avoid any discharge of soil or contaminants or removal of stream water that could result in a violation of applicable federally- approved water quality standards.
13. Return area to original contour or as directed by the surface owner. If needed, add clean soil to disturbed areas. Restore disturbed areas by re-establishing vegetation using seed, sod or other approved method. Restore with native species unless otherwise directed by the surface owner in writing and approved by the BIA. No noxious or invasive species may be used in revegetation and reclamation activities.
14. If well drilling, completion and development are successful; all areas of the surface disturbance (i.e. well pad, access road, pipeline, etc.) that are not needed or used in the production or operation of the well shall be promptly reclaimed as described in the approved EA. If well drilling, completion and development are not successful, reclamation of the entire area will begin promptly. After a producing well is no longer in production, reclamation of the site will begin promptly. Reclamation shall be



**Bureau of Indian Affairs, Osage Agency**  
**Permit Conditions for Drilling Operations**  
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	Quarter	Section	Township(N)	Range(E)	

completed not later than ninety (90) days from rig removal, well abandonment or final plugging of a well, unless otherwise approved by the BIA.

15. The applicant shall conduct activities in a manner that avoids any potential incidental take or harm to federally-listed threatened and endangered species, or in a manner that complies with any permit or authorization issued by the U.S. Fish and Wildlife Service (USFWS). Applicant will follow guidance in the USFWS "Oklahoma Ecological Services Field Office Migratory Bird and Eagle Impact Avoidance Measures for Actions Associated with Oil and Gas Projects (April 2014).
16. Applicant will follow USFWS established protocol regarding areas where the American burying beetle (ABB) is known or suspected to exist. See <http://www.fws.gov/southwest/es/oklahoma/ABBICP.htm>. If proposed operations require the construction of a drilling pit or other excavation activity by heavy equipment, then the lessee must ensure that suitable habitat for the ABB does not exist. If proposed operations will impact suitable habitat for the ABB, it will be the responsibility of the lessee to obtain authorization from the USFWS to proceed with that portion of the project.

**Site-Specific BMPs and Special Instructions**

**The following BMPs shall be followed by lessees, their agents, operators, and contractors:**

1. Air Quality: For proposed drilling operation in areas where formations will be penetrated which have zones suspected of containing H<sub>2</sub>S of 100PPM in the gas stream, Lessee will implement the Air Quality BMPs listed in their Environmental Assessment, which are hereby incorporated by reference.
2. American Burying Beetle: If the proposed ground disturbing activities have not commenced by the beginning of the next active season (2016) lessee must perform another round of ABB presence absence surveys and submit those valid survey results to the results to the BIA and the USFWS. If subsequent surveys are positive for the presence of the ABB then additional consultation with USWS must be initiated between the BIA and the USFWS before drilling operations may commence.
3. Approval must be obtained from the Environmental Protection Agency prior to the commencement of workover operations related to underground injection, construction or conversion of saltwater injection/disposal wells.

1234 D

5-425 a.

gwp

02736

DEPARTMENT OF THE INTERIOR  
OFFICE OF INDIAN AFFAIRS  
FINAL REPORT OF COMPLETED OR DEEPEINED WELLS  
FOR USE ON LANDS COVERED BY DEPARTMENTAL LEASES

MISCELLANEOUS  
RECEIVED

NOV 21 1924

NO. 26900

OSAGE AGENCY 15

This report must be mailed immediately after completion of well.

LESSEE Phillips Petroleum Company,

LESSOR Osage Tribe of Indians (A.M. Matt)

WELL No. 6 SE  $\frac{1}{4}$  SEC. 11 T. 27 R. 5 COUNTY Osage

Well located 980' from N-S. of line and 979' from E-W. of line Elevation 1132.3 Gr.  
(Derrick floor, relative to sea level.)

Well drilled by J. J. Fitzstephens

Superintendent A. R. Edmondson

Date commenced drilling 9-7-24

, 191 Finished 11-11-24

, 191

Date commenced deepening

, 191 Finished

, 191

Type of rig

Standard

(Standard, portable, etc. If more than one type used, give distances and time drilled by each.)

Method of drilling

Dry hole.

(Dry hole, wet, mud-fluid, etc. If more than one method used, give distances and time drilled by each.)

CASING USED IN DRILLING

CASING LEFT IN HOLE

SHOE

PACKERS

Length	Size	Wt. per ft.	Thread	Length	Landed at	Length	Make	Kind	Length	Set at
41' 2"	20	Ins. 90	Lbs. Per in.	21' 2"	Ft.	Ft.			Ft.	Ft.
888	4	15 1/2	Ins. 70	Lbs. Per in.	Ft.	Ft.			Ft.	Ft.
1230	6	12 3/8	Ins. 50	Lbs. Per in.	Ft.	Ft.			Ft.	Ft.
1458	1	10	Ins. 40	Lbs. Per in.	Ft.	Ft.			Ft.	Ft.
2325	8 1/2	Ins. 28	Lbs. Per in.	2325	Ft.	Ft.			Ft.	Ft.
2823	5 5/8	Ins. 24	Lbs. Per in.	2823	Ft.	Ft.			Ft.	Ft.

Method of shutting off water (In all cases give size of casing and formation in which landed. If driven, give feet driven and method.)  
(If packed, kind and length. If cemented, give amount, time of setting, method, etc.)

Cased off.

Is water completely shut off? yes Amount water with oil per cent. Is oil cut

Oil—Initial 24-hr. production 600 bbls. Initial 24-hr. production after shot bbls. Shot from no shot, size qts.

Gravity of oil ° Baumé. Pump

(Size and length.)

Tubing

(Size and length.)

Gas—Initial open flow sand from	ft. to	ft.	Cu. ft. Rock pressure	lbs. per sq. in.
Initial open flow sand from	ft. to	ft.	Cu. ft. Rock pressure	lbs. per sq. in.
Initial open flow sand from	ft. to	ft.	Cu. ft. Rock pressure	lbs. per sq. in.
Initial open flow sand from	ft. to	ft.	Cu. ft. Rock pressure	lbs. per sq. in.

Dry hole or abandoned well (Give date plugged, number of plugs, kind of plugs,  
depth placed and final condition of hole.)

REMARKS.

6-4339



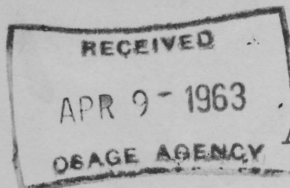
\$100.00 location bonus paid to Geo. N. Wise 7-21-24

Red. hole 2986' in sandy shale. Sandy shale 2986'-2996'. Gas sand 2996'-3000', dark brown soft sand 3000'-3008', soft brown sand 3008'-3047', black shale 3047'-3053', Total Depth C.M.

Sand, gas, gray soft	2994	3000	first gas
Sand, oil, gray soft	3000	3047	first oil 3000, 1000' 3005'
Shale, blue sort	3047	3053	total depth

Sign here *J. S. Dewar*

Your position with lessee *Asst Gen. Supt.*



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
OSAGE INDIAN AGENCY  
PAWHUSKA, OKLAHOMA

1 - OIA  
1 - File

Date 4-5-63

**Application For Operation and Report On Wells**  
North Burbank Unit 16

*1811-27-5*

(Location fee paid to whom) \_\_\_\_\_ (Date) \_\_\_\_\_ (Amount) \_\_\_\_\_  
Well No. 6 is located 980 ft. from S line and 979 ft. from W line.  
SE/4, Sec. 11 27N 5E Osage County, Oklahoma.  
( $\frac{1}{4}$  Sec. & Sec. No.) (Twp.) (Range)  
The elevation of the {surface  
derrick floor } above sea level is \_\_\_\_\_ ft.

USE THIS SIDE TO REQUEST AUTHORITY FOR WORK  
(three copies required)

Notice of intention to:

- Drill \_\_\_\_\_ ☐  
Change plans \_\_\_\_\_ ☐  
Deepen or plug back \_\_\_\_\_ ☐  
Convert \_\_\_\_\_ ☐  
Shoot or acidize \_\_\_\_\_ ☐  
Pull or alter casing \_\_\_\_\_ ☐  
Abandon well \_\_\_\_\_ ☐

**Details of Work**

State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work;

USE THIS SIDE TO REPORT COMPLETED WORK  
(one copy required)

Character of well (whether oil, gas or dry) Oil

Subsequent report of:

- Conversion \_\_\_\_\_ ☐  
Shooting or acidizing \_\_\_\_\_ ☐  
Altering casing \_\_\_\_\_ ☐  
Plugging back \_\_\_\_\_ ☐  
Abandonment \_\_\_\_\_ ☒

**Details of Work**

Spotted 75 sx reg w/30% Diacel D & 2% CC @ 2990' - TOC 2770'. Ripped 7" 2585-60' & pld 122 jts. Dmpd 10 sx cmt @ 2450'. 8-5/8" parted - rec 34 jts. Mudded hole to surf.

(Continue on reverse side if necessary)

This block for plugging information only

**CASING RECORD**

Size	In hole when started	Amount recovered	If parted	
			Depth	How
8-5/8"	2325'	714'		
7"	2823'	2560'		
ORIGINAL TOTAL DEPTH				

Plugging commenced 3-22-63

Plugging completed 4-4-63

Name of the inspector who supervised the plugging of this well \_\_\_\_\_

Lessee: Phillips Petroleum Company

By: [Signature] Dist. Supt.

Subscribed and sworn to before me  
this 5th day of April 19 63

Notary Public

My commission expires 7-12-66

I understand that this plan of work must receive approval in writing of the Osage Indian Agency before operations may be commenced.

Lessee: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_

Approved: [Signature]

Osage Agency Inspector

4-10-63



\$100.00 location bonus paid to Geo. H. Wise 7-21-24

Red. hole 2986' in sandy shale. Sandy shale 2986'-2996'. Gas sand 2996'-3000', dark  
brown soft sand 3000'-3008', soft brown sand 3008'-3047', black shale 3047'-3053, Total Dept  
C.M.

Sand, gas, gray soft  
Sand, oil, gray soft  
Shale, blue soft

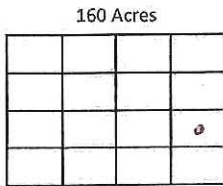
2994	3000	first gas
3000	3047	first oil 3000, 1000' 3005'
3047	3053	total depth

Sign here

*J. L. Duvar*

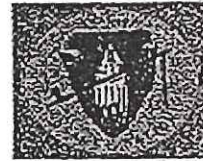
Your position with lessee

*Asst Gen. Supt.*



Spot well on plat

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
OSAGE AGENCY  
P.O. BOX 1539  
Pawhuska, Oklahoma 74056  
Report of Completed & Deepened Wells  
Within the Osage Reservation



Specify type of well  
Oil, Gas, CBM, SWD, Dry, etc. Injection

One original must be filed within  
10 days after completion of well.

Company operating CHAPARRAL ENERGY, L.L.C. Address 701 Cedar Lake Blvd., Oklahoma City, OK 73114  
Lessee CHAPARRAL ENERGY, L.L.C. Lessor OSAGE TRIBE

Well No. 16-W6 SE1/4 Sec 11 Twp 27N Rge 5E Farm Name North Burbank Unit

☒ [N] ☒ [E]

Well located 980 ft from [S] line, 979 [W] line, Elevation GL 1134 DF 1147 KB 1148

Elevation and location surveyed by Topographic Land Surveyors

Drilling contractor(s) Edge Drilling Began 5/2/2016 Finished 5/13/2016

Cable drilled interval and bit size(s) NA

Mud ☒ Air ☐ Rotary drilled interval & bit size(s) 18" to 140'; 12-1/4" from 140'-505'; 8-3/4" from 505'-2935'; 6-1/8" from 2935'-3069'

Casing Record			Cementing Contractor <u>Consolidated Oil Well Services</u>		
Size	Wt	Landed at	Interval cemented	Cement used; include type, gel, add	
<u>13 3/8</u> ins	<u>48</u> lbs/ft	<u>136</u> ft <u>0'</u>	to <u>136'</u>	<u>14 yds grout</u>	
<u>9 5/8</u> ins	<u>36</u> lbs/ft	<u>505</u> ft <u>0'</u>	to <u>505'</u>	<u>400 sx 65/35 + 200 sx Class C w/2% CC &amp; 6% gel</u>	
<u>7</u> ins	<u>26</u> lbs/ft	<u>2935</u> ft <u>0'</u>	to <u>2935'</u>	<u>300 sx Class C lite + 200 sx Class C</u>	

Open hole  
Interval(s) perforated 2935 to 3069; 2935 to 3069; 2935 to 3069

Interval(s) shut off

Interval(s) left open Burbank; and method Casing and cement

Plug back depth 2918 Packer set AS1X Setting depth 2918 Packer left in? Yes

How were fresh water and other zones protected? Casing and cement

Flow ☐ Pump ☐ Swab ☐ Bail ☐ Initial 24 hour Production Rate Before Treatment  
Casing ☐ Tubing ☐ Choke Size            Oil            bbls, Gas            MCF Water            bbls  
Duration of test            hrs, Gravity            API FTP            psi SICP            psi SITP            psi  
Formation treatment (shot, acid, fracture, etc.) Indicate amount of materials used (i.e., nitro, sand, water, acid & other additives)

           Feet to             
           Feet to             
           Feet to           

Flow ☐ Pump ☐ Swab ☐ Bail ☐ Initial 24 hour Production Rate After Treatment  
Casing ☐ Tubing ☐ Choke Size            Oil            bbls, Gas            MCF Water            bbls  
Duration of test            hrs, Gravity            API FTP            psi SICP            psi SITP            psi  
Location fee paid Chaparral Real Estate LLC Date            Amount \$             
Signature *[Signature]* Position with Lessee Regulatory Supervisor - EOR

Datum Elev. 1147' KB

## Well Number \_\_\_\_\_

[illegible]

**WELL OPERATION & GEOLOGICAL DATA**

Permit Number \_\_\_\_\_

~~For Class II Use Only~~Type of Injection Well: EOR  
(EOR / SWD/ HC Storage)

(New / Conversion / Authorized By Rule)

**Injection:**Rate (B/D): Average 2000BW, 4000 MCF Maximum 4000 BW, 6000 MCFFluid: Tds 113,400 sp. Gr. 1.079 Analyses Included: ( Yes / No )Source (Formation name): BurbankWill anything be added to the water to be injected? ( Yes / ~~No~~ )What will those additives be? Biocide + Oxygen scavenger if needed**Geologic Data:***All references to depths are below land surface.*Injection Intervals: 2935 to 3069; \_\_\_\_\_ to \_\_\_\_\_Formation Name Burbank Lithology Sandstone Porosity (%) 15Permeability (md) 32 Total formation thickness 58'Perforated or open hole interval 2935'KB-3069'KB

Formation Name \_\_\_\_\_ Lithology \_\_\_\_\_ Porosity (%) \_\_\_\_\_

Permeability (md) \_\_\_\_\_ Total formation thickness \_\_\_\_\_

Perforated or open hole interval \_\_\_\_\_

Current Fluid Level in Well \_\_\_\_\_ ft. (below land surface) and / or

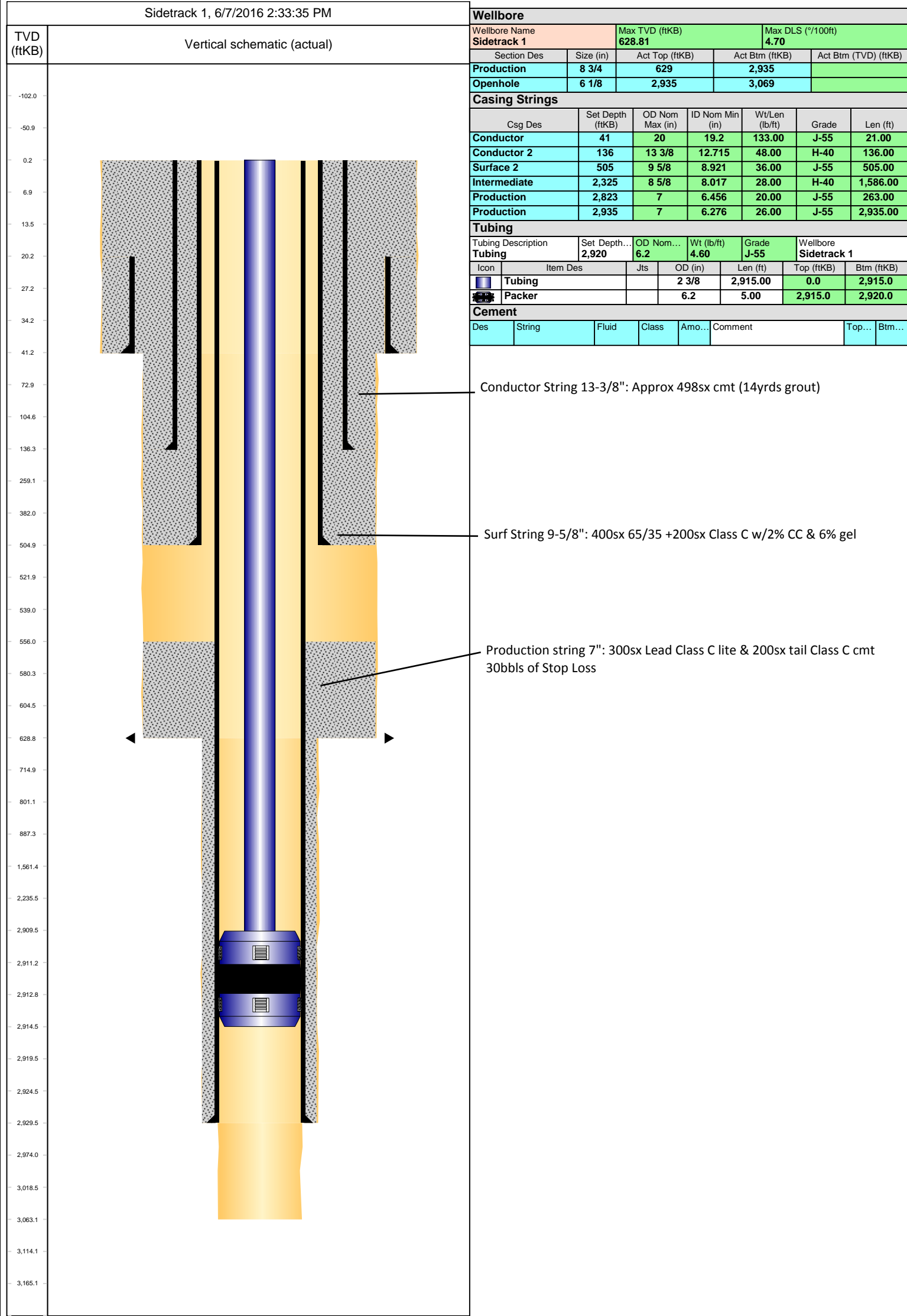
Current Reservoir Pressure 1580 Date 6-8-2016Drill Stem Test ( ~~Yes~~ / No ) If yes, attach copy.Depth of nearest fresh water well(s) 150 ft.**Facilities Associated with Injection Well:**Adequate Berm around tank battery? ( Yes / ~~No~~ )Leaking Flow Lines? ( ~~Yes~~ / No )**Formation:**

Top/Bottom From PBTD to Surface.

<u>Burbank</u>	<u>3011.5'KB/ 3069KB</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____



API/UWI	Energia ID# 5255.1061.001	County OSAGE	State/Pro... OK	Surface Legal Location SEC 11-27N-5E	Well Config	Well Status LOCATION	District SHIDLER	Field Name
Ground Elevation (ft)	KB-Ground Distance (ft)	Spud Date	Rig Release Date	On Production Date	Total Depth All (TVD) (ftKB)			



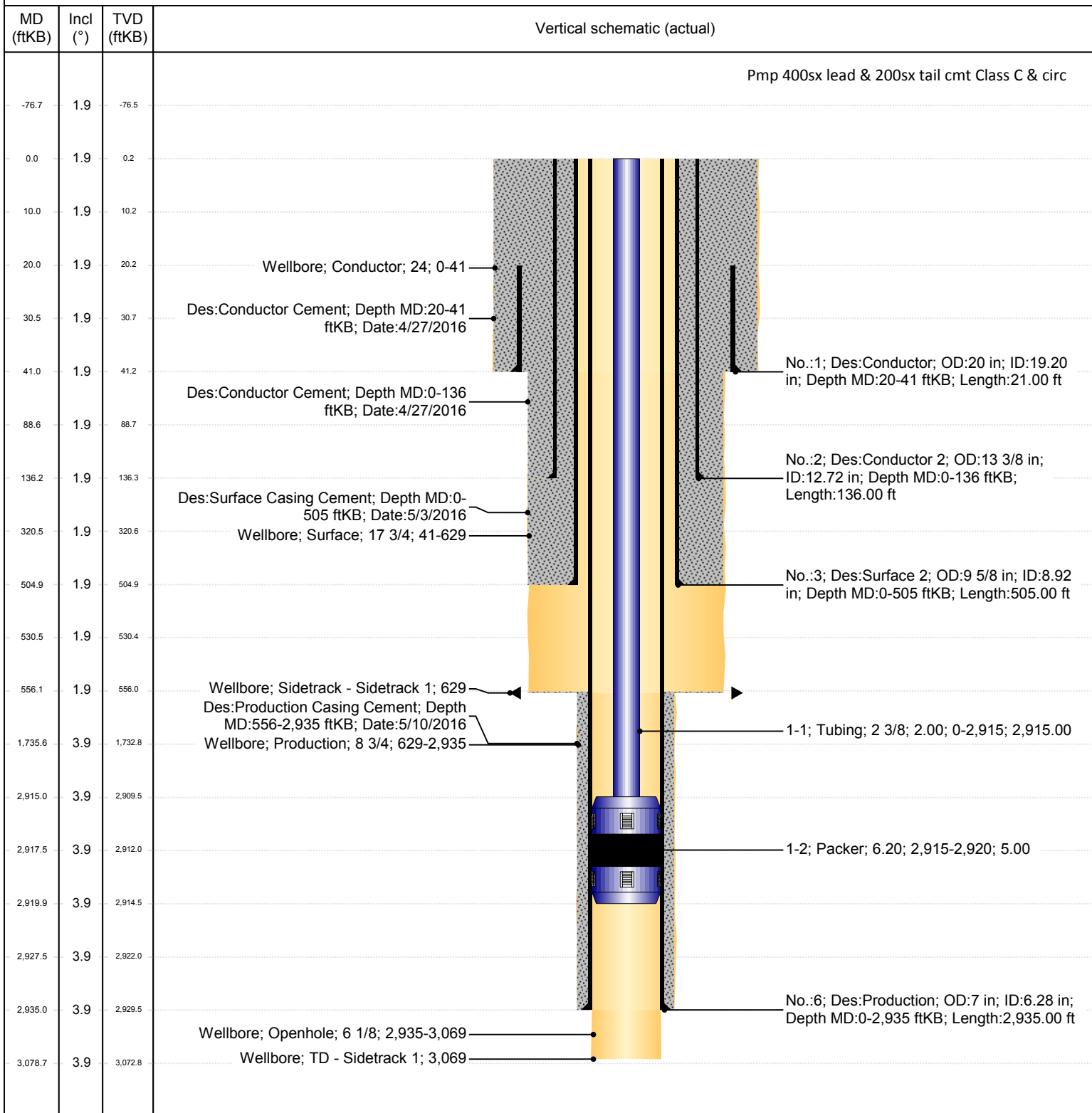
<b>NBU #16-6</b>										
Operator <b>CHAPARRAL ENERGY LLC</b>				API/UWI		Enertia ID# <b>5255.1061.001</b>		Spud Date		Total Depth All (TVD) (ftKB)
District <b>SHIDLER</b>	County <b>OSAGE</b>	State/Pro... <b>OK</b>	Latitude (°)	Longitude (°)	Surf Loc <b>SEC 11-27N-5E</b>	N/S Dist (ft)	N/S Ref	East/West Distance (ft)	E/W Ref	

### Most Recent Job

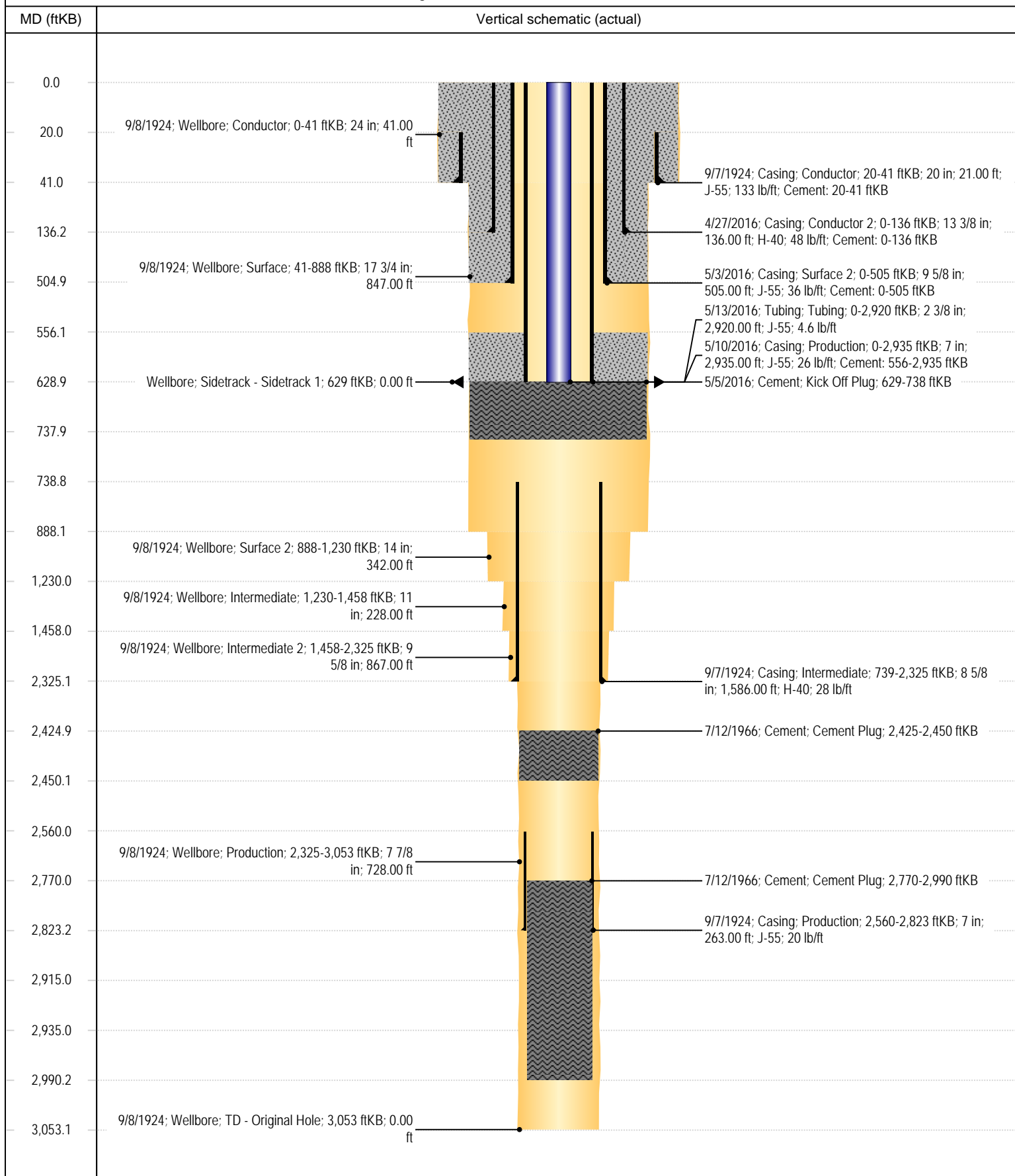
Job Category <b>LOE</b>	Primary Job Type <b>Lease Operating Expense</b>	Secondary Job Type	Start Date <b>5/11/2016</b>	End Date
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**TD: 3,069.0**

Sidetrack 1, 6/7/2016 1:57:45 PM



Original Hole, 6/7/2016 3:05:30 PM





# Chaparral Energy, LLC

## North Burbank Unit #16-W6

1/4 Mile Areas of Review

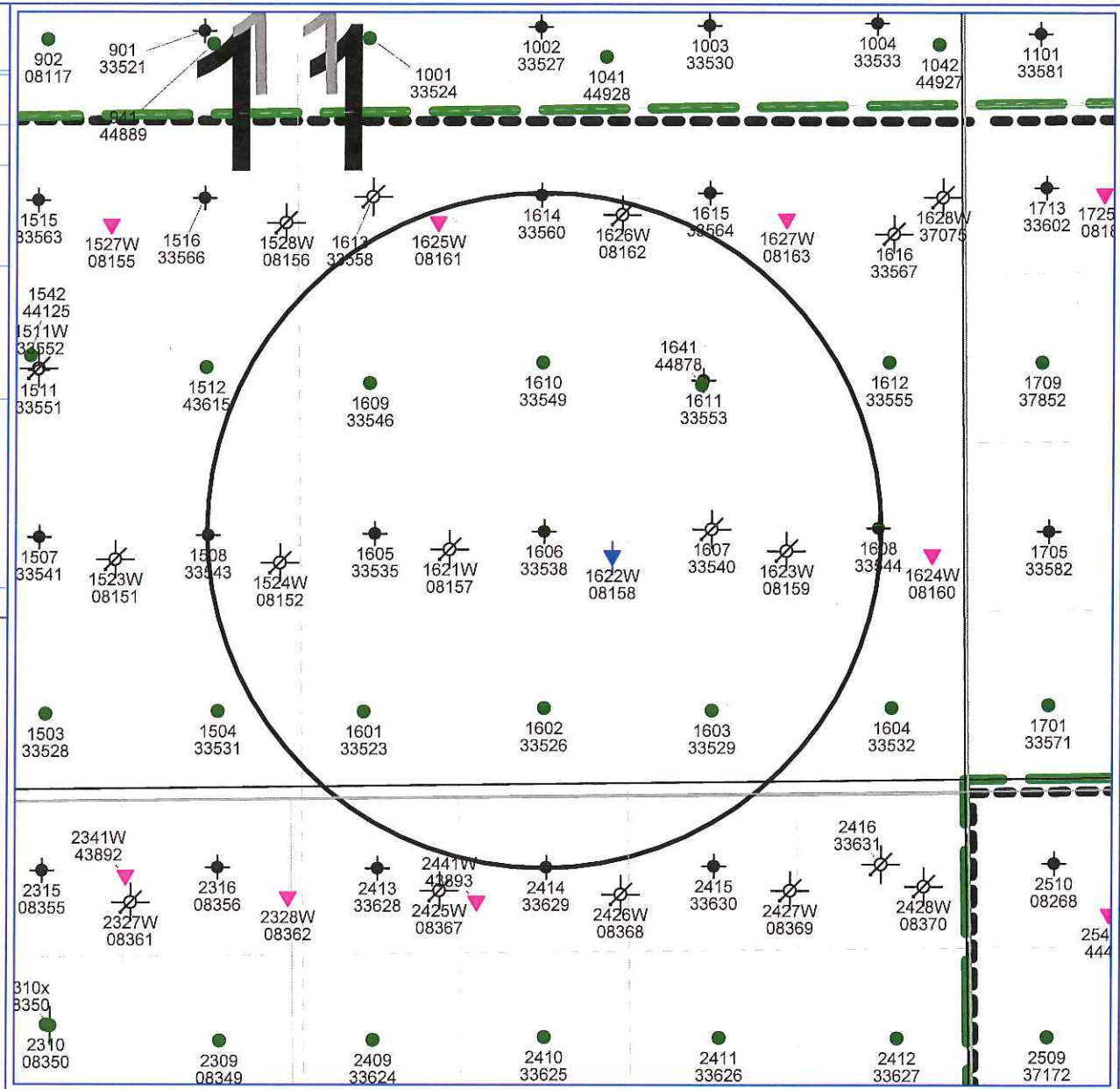


### POSTED WELL DATA

Well Label  
API Series

- WELL SYMBOLS**
- Plugged & Abandoned Injection
  - SHUT-IN PRODUCER
  - DRY HOLE
  - OIL PRODUCER
  - P&A'd PRODUCER
  - SHUT-IN WATER INJECTOR
  - WAG Injector

May 4, 2016



PETRA 5/4/2016 4:20:55 PM

OSAGE TABULATION OF WELLS WITHIN 1/4 MILE OF PROPOSED INJECTION WELL  
WHICH PENETRATE THE INJECTION ZONE

Proposed Inj Well NBU #16-06

\*\*\*\*\*

Well Name 1524W Company Name Phillips Petroleum Date Drilled 4/8/1963 Depth 3052 '

Location 890 ' FS L & 75 ' FE L, SW /4, Sec. 11 , T 27 N, R 5 E Status TA

Elevation 1119.86 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
9-7/8 "	8-5/8 "	104 '	100sks @ completion	0	Pumped 200 sx Class C Neat (15.2# slurry) down 3-1/2" csg, displaced to 2800'. Tag TOC @ 2553'. Pressure test 3-1/2" to 800 psi, good. Well TA.
6-1/8 "	4-1/2 "	2988 '	75 sks w/30% Diacel, 200sks reg cmt 2% gel	1740	
6-1/8 "	3-1/2 "	2972 '	150 sks reg w/2% CC	Surf	
"	"	"	"	"	
"	"	"	"	"	Submitted P&A request for top plug to BIA. Awaiting approval.
"	"	"	"	"	

Formations Open To Wellbore: None

\*\*\*\*\*

Well Name 1605 Company Name Phillips Petroleum Date Drilled 9/1/1924 Depth 3020 '

Location 980 ' FS L & 300 ' FW L, SE /4, Sec. 11 , T 27 N, R 5 E Status P&A 7/26/1965

Elevation 1122.4 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
Unk "	8-5/8 "	2320 '	No cmt upon completion		Ripped 7" csg 2710-2510. Pld 110 jts & bridged hole @ 2480. Dmpd 10 sx cmt. Ripped 8-5/8" csg & parted @ 502'. Rec 22 jts & bridged hole @ 120' & dmpd 45 sx cmt. Capped w/10 sx cmt.
Unk "	7 "	2805 '	See P&A work details		
"	"	"	"		
"	"	"	"		
"	"	"	"		

Formations Open To Wellbore: None

\*\*\*\*\*

Well Name 1621W Company Name Phillips Petroleum Date Drilled 4/4/1963 Depth 3054 '

Location 890 ' FS L & 565 ' FW L, SE /4, Sec. 11 , T 27 N, R 5 E Status P&A 3/3/2011

Elevation 1127.17 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
"	8-5/8 "	111 '	95 sks		Found 4-1/2' parted at 613', POOH with 613' of 4-1/2", TIH with 7" skirt on 5-1/2" casing. Milled and cleaned out to 1670'. Pump 300 sx reg ', POOH to 1200', pump 150 sx reg & displace tbg. RIH w/tbg to 639'. Pump 450 sx reg & bring cmt to surface from 619'. Top well off w/cmt.
"	4-1/2 "	3011 '	75 sks w/30% Diacel D	2616'(calc)	
"	"	"	See P&A work details.		
"	"	"	"		
"	"	"	"		

Formations Open To Wellbore: None

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OSAGE TABULATION OF WELLS WITHIN 1/4 MILE OF PROPOSED INJECTION WELL  
WHICH PENETRATE THE INJECTION ZONE

Proposed Inj Well NBU #16-06

\*\*\*\*\*

Well Name 1601 Company Name Chaparral Energy Date Drilled 7/17/1924 Depth 3021 '

Location 300' FS L & 300' FW L, SE /4, Sec. 11 , T 27 N, R 5 E Status Producer

Elevation 1115.3 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
Unk	20	31	Pmp 600sks reg cmt @ 499' to surf up 20' & 8-5/8"	Surf	
Unk	8-5/8	2318		Surf	
Unk	7	2773	Pulled all 7" in 1963	N/A	
Unk	5-1/2	2970	40 sx reg w/30% Diacel. Stg 1 TOC @ 2400'. Shot off at 537' & POOH.	Surf	
Unk	4-1/2	2954	225 sx at bottom - TOC unkwn, DV at 499' w/600 sx to surface	Surf	

Formations Open To Wellbore: Burbank

\*\*\*\*\*

Well Name 1609 Company Name Chaparral Energy Date Drilled 9/8/1924 Depth 3021 '

Location 980' FN L & 300' FW L, SE /4, Sec. 11 , T 27 N, R 5 E Status Producer

Elevation 1127.7 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
	20	20	Shot 2 sq holes @ 500' & 400' port collar @ 530'.		Converted to water input 5/1973 Converted to Oil 7/8/1974
	15-1/2	880	Top of 15-1/2" at 211', non cemented		
	8-5/8	2320	non cemented except for 7" sqz.	unkwn	
	7	2805	sqz'd leak 1,835' - 2330'	unkwn	
	5-1/2	2962	275 sx reg	unkwn	

Formations Open To Wellbore: Burbank

\*\*\*\*\*

Well Name 1626W Phillips Petroleum Co 7/1/1963 3050

Location 420' FN L 1245' FW L SE /4 Sec, 11 T 27 N R 5 E Status P&A 12/30/1998

Elevation 1138 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
Unk	8-5/8	103	90sks reg cmt		MIRU POOH w/lined tbg. RIH w/wrkstring to 3020' & circ. 9.0 # gal mud from 3020' - 400'. Spot 35 sx 50-50 poz cmt @ 3020'. Pooh w/tbg. Tag plug @ 2640'. Shootoff 4-1/2" csg @ 425' & POOH w/same. RIH w/tbg to 400' & circ top plug of 50-50 poz cmt to surface. POOH w/tbg. Cutoff 8-5/8" csg 3' below GL.
Unk	4-1/2	3000	75sks 30% Diacel D		
			See P&A work details		

Formations Open To Wellbore: None

\*\*\*\*\*



OSAGE TABULATION OF WELLS WITHIN 1/4 MILE OF PROPOSED INJECTION  
WELL WHICH PENETRATE THE INJECTION ZONE

Proposed Inj Well **NBU #16-06**

\*\*\*\*\*

Well Name **1622W** Company Name **Phillips Petroleum** Date Drilled **4/3/1963** Depth **3051 '**

Location **890' FS L & 1245' FW L, SE /4, Sec. 11 , T 27 N, R 5 E** Status **Injection Well**

Elevation **1130.89** ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
12-1/4 "	8-5/8 "	114 '	95 sks cmt, Liner cmt 150 sx	Surf	Submitted 139 P&A request to BIA. Awaiting approval to plug.
8-1/2 "	3-1/2 "	2970 '	300 sx	0	
8-1/2 "	4-1/2 "	3020 '	80 sks w/30% Diacel D	2700(calc) '	
"	"	"	"	"	
"	"	"	"	"	
"	"	"	"	"	"

Formations Open To Wellbore: **Burbank**

\*\*\*\*\*

Well Name **1607** Company Name **Phillips Petroleum** Date Drilled **9/25/1924** Depth **3051 '**

Location **980' FS L & 979' FE L, SE /4, Sec. 11 , T 27 N, R 5 E** Status **P&A 4/11/1963**

Elevation **1133.70** ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
Unk "	8-5/8 "	2315 '	No cmt upon completion		Spotted 103 sx reg w/30% Diacel D - TOC 2800' Ripped 7" csg 2680-75' & pld 125 jts. Dmpd 10 sx cmt @ 2600'. Ripped 8-5/8" csg 200-680' & pld 32 jts. Mudded hole to surf.
Unk "	7 "	2824 '	See P&A work details		
"	"	"	"	"	
"	"	"	"	"	
"	"	"	"	"	

Formations Open To Wellbore: **None**

\*\*\*\*\*

Well Name **1623W** Company Name **Phillips Petroleum** Date Drilled **3/29/1963** Depth **3066 '**

Location **890' FS L & 775' FE L, SE /4, Sec. 11 , T 27 N, R 5 E** Status **P&A 5/27/1992**

Elevation **1137.73** ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
Unk "	8-5/8 "	102 '	95sks reg cmt		Perf 4-1/2 csg @ 1400' & 1350' 2 spf. Ran in hole w/2-3/8" ws, loaded hole w/gel, pmpd 10 sx plug on BP @ 2748'. Spot 55sk cmt 1402'-1250'. POOH, LD tbg. Shot off 4-1/2" csg @ 308'. Ran 280' of 2-3/8" tbg circ 105sk cmt to surf. Topped off plug.
Unk "	4-1/2 "	3010 '	75sks 30% Diacel D		
"	"	"	See P&A work details		
"	"	"	"	"	
"	"	"	"	"	

Formations Open To Wellbore: **None**

\*\*\*\*\*

OSAGE TABULATION OF WELLS WITHIN 1/4 MILE OF PROPOSED INJECTION  
WELL WHICH PENETRATE THE INJECTION ZONE

Proposed Inj Well **NBU #16-06**

\*\*\*\*\*

Well Name **1602** Company Name **Phillips Petroleum** Date Drilled **8/31/1924** Depth **3056 '**

Location **300' FS L & 980' FW L, SE /4, Sec. 11 , T 27 N, R 5 E** Status **Oil Producer**

Elevation **1126** ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
24 "	20 "	21 '	No cmt upon compl		' Converted from SD GI to active oil well 4/17/64.
9-1/2 "	8-5/8 "	2335 '		surface	
8-3/4 "	5-1/2 "	2994 '	cmt w/40 sks reg 30% DD. Cut off at 550' and POOH with same, Cement 499' - surf via 4-1/2" D.V. tool	surface	
"	4-1/2 "	2970 '	200 sx (stg 1) + 300 sx out D.V. at 499'.	270	
"	"	"			
"	"	"			

Formations Open To Wellbore: **Burbank**

\*\*\*\*\*

Well Name **1603** Company Name **Phillips Petroleum** Date Drilled **9/24/1924** Depth **3054 '**

Location **300' FS L & 979' FE L, SE /4, Sec. 11 , T 27 N, R 5 E** Status **Oil Producer**

Elevation **1137.1** ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
"	20 "	22 '			' 6-20-63: CO to 3025'. Ran 6 jts (254.30') 5-1/2" OD 17# 8R R-3 "B" csg set @ 2993', top lnr 2738.70'. Cmt w/70 sx reg w/20% Diacel D & 2% CC. CO cmt & cvgs to btm @ 3054'.
"	8-5/8 "	2349 '	Shoot sqz holes at 500' & 400'	surface	
"	7 "	2834 '		surface	
"	5-1/2 "	2993 '	270 sx(stg 1) + 870 sx. thorough DV at 500'. Stg 1 TOC unkwn	surface	
"	"	"			

Formations Open To Wellbore: **Burbank**

\*\*\*\*\*

Well Name **1608** Company Name **Phillips Petroleum** Date Drilled **9/23/1924** Depth **3040 '**

Location **980' FS L & 300' FE L, SE /4, Sec. 11 , T 27 N, R 5 E** Status **P&A 4/15/1966**

Elevation **1141.5** ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
Unk "	10-3/4 "	1138 '	No cmt upon completion		' Cmt w/60 sx cmt & 30% DD. Max press 700#. Ripped 7" @ 2450' & pld 119 jts. Dmpd 10 sx cmt @ 2400'. Ripped 8-5/8" csg @ 1340' & pld 70 jts. Bridged hole @ 100' & dmpd 230 sx cmt. Dmpd 50 more sx cmt @ 100'. 10 sx @ 25'. Capped w/5 sx cmt.
Unk "	8-5/8 "	2317 '	See P&A work details		
Unk "	7 "	2828 '			
"	"	"			
"	"	"			

Formations Open To Wellbore: **None**

\*\*\*\*\*

OSAGE TABULATION OF WELLS WITHIN 1/4 MILE OF PROPOSED INJECTION WELL  
WHICH PENETRATE THE INJECTION ZONE

Proposed Inj Well NBU #16-06

\*\*\*\*\*

Well Name 1508 Company Name Phillips Petroleum Date Drilled 4/11/1924 Depth 3006 '

Location 980' FS L & 275' FE L, SW /4, Sec. 11 , T 27 N, R 5 E Status P&A 4/17/1963

Elevation 1104.3 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
Unk "	8-5/8 "	2300 '	No cmt upon completion		Spotted 80 sx common w/30% Diacel D & 2% CC @ 2960' - TOC 2750'; Ripped 7" 2720-2555' & pld 118 jts. Dmpd 10 sx cmt @ 2450'. Ripped 8-5/8" 2200-1100' & pld 50 jts. Mudded hole to surf.
Unk "	7 "	2766 '	See P&A work details		
" "	" "	" '			
" "	" "	" '			
" "	" "	" '			

Formations Open To Wellbore: None

\*\*\*\*\*

Well Name 1610 Company Name Phillips Petroleum Date Drilled 9/24/1924 Depth 3036 '

Location 980' FN L & 979' FW L, SE /4, Sec. 11 , T 27 N, R 5 E Status Producer

Elevation 1126.6 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
Unk "	20 "	20 '	Shot two holes @ 500' & 400', port collar @ 530'. Pmp 600sx to surf	Surf	
Unk "	8-5/8 "	2335 '		Surf	
Unk "	7 "	3008 '		Surf	
Unk "	5-1/2 "	2930 '	Shot sq holes @ 2810', 2850', 2895', pmp 35sx cmt @ 2920'. Pmp 150sx 2% gel & 50sx reg.	108	
" "	" "	" '			

Formations Open To Wellbore: Burbank

\*\*\*\*\*

Well Name 1611 Company Name Phillips Petroleum Date Drilled 10-1-1924 Depth 3053 '

Location 980' FN L & 979' FE L, SE /4, Sec. 11 , T 27 N, R 5 E Status P&A 5/31/1995

Elevation 1136.9 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
Unk "	7 "	2849 '	No cmt upon completion		Various plugging/cementing work. Final Report - Remove pkr RIH w/tbg to 496' pmp 50 sx cmt. COOH WOC RIH w/tbg & pkr set @ 217' mx pmp cmt to surface outside 8-5/8 csg, COOH set pkr @ surf RDMP WSU cap csg w/proper ID. Top Plug 725sx cmt, Bottom Plug 160 sx cmt.
" "	" "	" '	See P&A work details		
" "	" "	" '			
" "	" "	" '			
" "	" "	" '			

Formations Open To Wellbore: None

\*\*\*\*\*



OSAGE TABULATION OF WELLS WITHIN 1/4 MILE OF PROPOSED INJECTION WELL  
WHICH PENETRATE THE INJECTION ZONE

Proposed Inj Well NBU #16-06

\*\*\*\*\*

Well Name 1641 Company Name Chaparral Energy Date Drilled 3/2/2013 Depth 3139 '

Location 1572' FS L & 1032' FE L, SE /4, Sec. 11 , T 27 N, R 5 E Status Producer

Elevation 1139 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
12-1/4 "	9-5/8 "	800 '	Pmp 350sx Class A cmt 2% gel 6% cal, .4pheno	10 '	
8-3/4 "	7 "	3107 '	150 sx class c	1734 '	
"	"	"	"	"	
"	"	"	"	"	
"	"	"	"	"	
"	"	"	"	"	

Formations Open To Wellbore: Burbank

\*\*\*\*\*

Well Name 1625W Company Name Phillips Petroleum Date Drilled 7/8/1963 Depth 3080 '

Location 420' FN L & 565' FW L, SE /4, Sec. 11 , T 27 N, R 5 E Status WAG Injector

Elevation 1144.85 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
12-1/4 "	8-5/8 "	113	90 sx w/ 30% diacel D(at compl). RIH with 1" between 8-5/8" and 4-1/2" to 360' and cement to surface with 225 ' sx reg.	Surf	
8-1/2 "	3-1/2 "	2999 '	150sx cmt 2% gel	unkwn	
8-1/2 "	4-1/2 "	3014 '	75 sx w/30% Diacel D(compl)	1750	
"	"	"	"	"	
"	"	"	"	"	

Formations Open To Wellbore: Burbank

\*\*\*\*\*

Well Name 1614 Company Name Phillips Petroleum Date Drilled 8/22/1924 Depth 3051 '

Location 300' FN L & 978' FW L, SE /4, Sec. 11 , T 27 N, R 5 E Status P&A 12/17/1965

Elevation 1138.1 ☒ GL ☐ KB

Hole Size	Casing Size	Landed Depth	Cement & Additive Data	Top of Cement	If well is TA or P&A Describe How:
"	8-5/8	2333 '	No cmt upon completion		Cmtd from w/60 sx cmt & 30% DD. Max press 700#. Ripped 7" csg @ 2700' pld 123 jts. Bridged hole @ 2600' & dmpd 10 sx cmt. Ripped 8-5/8" csg @ 1010' & pld 25 jts. Bridged hole @ 140' & dmpd 45 sx cmt. Bridged @ 25' & dmpd 10 sx cmt. Capped w/5 sx reg cmt.
"	7	2840 '	See P&A work details		
"		"	"		
"		"	"		
"	"	"	"		

Formations Open To Wellbore: None

\*\*\*\*\*

OSAGE TABULATION OF WELLS WITHIN 1/4 MILE OF PROPOSED INJECTION WELL  
WHICH PENETRATE THE INJECTION ZONE

Proposed Inj Well NBU #16-06

\*\*\*\*\*

Well Name 2414 Company Name Phillips Petroleum Date Drilled 8/22/1924 Depth 3061 '

Location 300 ' F N L & 980 ' F W L, NE /4, Sec. 14 , T 27 N, R 5 E Status P&A

Elevation 1136 ☒ GL ☐ KB

<u>Hole</u> <u>Size</u>	<u>Casing</u> <u>Size</u>	<u>Landed</u> <u>Depth</u>	<u>Cement &amp; Additive Data</u>	<u>Top of</u> <u>Cement</u>	<u>If well is TA or P&amp;A Describe</u> <u>How:</u>
Unk "	8-5/8 "	2335 '	No cmt upon completion	10	' Spotted 35 reg cmt w/30% Diacel D & 2% CC @ 3018'. TOC 2675'. Ripped 7" csg 2650-30' & pld 116 jts. Dmpd 10sx cmt @ 2560'. Ripped 8-5/8" csg 2200-1130'. Csg parted @ 697' & pld 31 jts. Mudded hole to surf.
Unk "	7 "	2835 '	See P&A work details	1748	
" "	" "	" '			
" "	" "	" '			
" "	" "	" '			

Formations Open To Wellbore: None

\*\*\*\*\*

APPLICANT'S PUBLIC NOTICE OF PERMIT AND VERIFICATION  
(\$147.2918 (b) (s) and \$147.2929 (d) (ii))

Chaparral Energy, LLC is applying for a permit for a Class II  
(Operator Name)  
injection well. Well No. 16-W6 is located 980 ft. from [N S] line and  
979 ft. from [E W] line. SE/4 Sec. 11 27N 5E  
(1/4 Sec. & Sec. No.) (Twp.) (Rge.)  
The well will be used to inject Produced Salt Water into the Burbank  
(Fluid Type) and CO2 (Formation Name)  
for (XXXXXX/enhanced recovery). The well operator's address is  
701 Cedar Lake Blvd. Oklahoma City, Ok 73114  
(Street/P.O. Box/City/State/Zip Code)

EPA may prepare a draft permit or a notice of intent to deny this application. Following the preparation of a draft permit or intent to deny, there will be an opportunity for public comments. For further information concerning the status of this application, please contact:

Osage UIC Office  
P. O. Box 1495  
Pawhuska, Oklahoma 74056  
Phone: (918) 287-5333

Notice Sent To: (Surface Owner/~~Tenant/Operator~~) Circle one

Chaparral Real Estate, LLC  
Name  
701 Cedar Lake Blvd.  
Address  
Oklahoma City, OK 73114  
City / State / Zip Code

I certify that the surface owner(s), the tenants on land where the injection well is located, and each operator of a producing lease within one-half mile of the well location was mailed a copy of this notice as required by 40 CFR \$147.2918.

Loepp Kuerten Dale  
(Owner/Operator Signature)

10/29/2015  
(Date of Notice)



APPLICANT'S PUBLIC NOTICE OF PERMIT AND VERIFICATION  
(\$147.2918 (b) (s) and \$147.2929 (d) (ii))

Chaparral Energy, LLC is applying for a permit for a Class II  
(Operator Name)  
injection well. Well No. 16-W6 is located 980 ft. from [N S] line and  
979 ft. from [E W] line. SE/4 Sec. 11 27N 5E  
(1/4 Sec. & Sec. No.) (Twp.) (Rge.)  
The well will be used to inject Produced Salt Water into the Burbank  
(Fluid Type) and CO2 (Formation Name)  
for ~~(XXXXXX)~~ enhanced recovery). The well operator's address is  
701 Cedar Lake Blvd. Oklahoma City, Ok 73114  
(Street/P.O. Box/City/State/Zip Code)

EPA may prepare a draft permit or a notice of intent to deny this application. Following the preparation of a draft permit or intent to deny, there will be an opportunity for public comments. For further information concerning the status of this application, please contact:

**Osage UIC Office**  
**P. O. Box 1495**  
**Pawhuska, Oklahoma 74056**  
**Phone: (918) 287-5333**

Notice Sent To: ~~(Surface Owner/Tenant/Operator)~~ Circle one

Chaparral Energy, LLC  
Name  
701 Cedar Lake Blvd.  
Address  
Oklahoma City, OK 73114  
City / State / Zip Code

I certify that the surface owner(s), the tenants on land where the injection well is located, and each operator of a producing lease within one-half mile of the well location was mailed a copy of this notice as required by 40 CFR \$147.2918.

Leigh K. Kunkin  
(Owner/Operator Signature)

10/29/2015  
(Date of Notice)

Form 8-155  
Oct. 1953

B001236

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF INDIAN AFFAIRS  
NATIONWIDE OIL AND GAS LEASE BOND

CBI Bristol Acquisition, L.P., Chaparral Energy, L.L.C.,  
Chaparral Oil, L.L.C.

KNOW ALL MEN BY THESE PRESENTS, That we,

of 701 Cedar Lake Blvd., Oklahoma, OK 73114

as principals, and U.S. Specialty Insurance Company

of 13403 Northwest Freeway, Houston, TX 77040, as surety, are held and firmly bound unto the United States of America the sum of one hundred fifty thousand (\$150,000) dollars, lawful money of the United States for the payment of which, well and truly to be made, we bind ourselves and each of us, our and each of our heirs, successors, executors, administrators, and assigns, jointly and severally, firmly by these presents.

Sealed with our seals and dated the 31st day of October, 2004

The condition of this obligation is such that whereas the said principal S have heretofore or may hereafter enter into or otherwise acquire an interest in oil and gas mining leases and oil and gas prospecting permits of various dates and periods of duration covering lands or interests in lands held by the United States in trust for individual Indians, or tribes or bands of Indians, or subject to restrictions against alienation without the consent of the Secretary of the Interior or his authorized representative, which leases and permits have been or may hereafter be granted or approved by the Secretary of the Interior or his authorized representative, and the identification of which herein is expressly waived by both principal S and surety Y hereto.

WHEREAS the principals and surety agree that the coverage of this bond shall extend to and include all extensions and renewals of leases and permits covered by this bond, such coverage to continue without any interruption due to the expiration of the term set forth therein.

WHEREAS the surety hereby waives any right to notice of any modification of any such lease or permit, or obligation thereunder whether effected by extension of time for performance, by commitment of such lease to unit, cooperative, or communitization agreement, by waiver, suspension, or charge in rental, except an increase thereof, by minimum royalty payment, except an increase thereof, by compensatory royalty payment, or otherwise, this bond to remain in full force and effect notwithstanding.

WHEREAS the principal S and surety Y agree that the neglect or forbearance of the obligee of any such lease or permit in enforcing the payment of any rental or royalty or the performance of any other covenant, condition, or agreement of any such lease or permit shall not in any way release the principal S and surety Y, or either of them, from any liability under this bond; and

WHEREAS the principals and surety agree that in the event of any default under any such lease or permit, the obligee may prosecute any claim, suit, action, or other proceeding against the principals and surety, or either of them, without the necessity of joining the other.

Now, if the said principal S herein shall faithfully carry out and observe all the obligations assumed in said leases and permits to which CBI Bristol Acquisition, L.P., Chaparral Energy, L.L.C., Chaparral Oil, L.L.C. is now or may hereafter become a party, and shall observe all the laws of the United States and regulations made, or which shall be made, thereunder, for the government of trade and intercourse with Indian tribes, and all rules and regulations that have been or shall hereafter be lawfully prescribed

by the Secretary of the Interior relative to said oil and gas mining leases and permits, and shall in all particulars comply with the provisions of said leases, permits, rules and regulations, then this obligation shall become null and void; otherwise, to remain in full force and effect.

The rate of premium charged on this bond is \$ 25/1000; the total premium paid is \$ \*\*3,750.00\*\*

Signed and sealed in the presence of-  
WITNESSES\*

X Thomas C. Lough  
Thomas C. Lough  
P.O. 701 Cedar Lake Blvd., OKC, OK 73114

X Terrell N. Lay  
Terrell N. Lay  
P.O. 701 Cedar Lake Blvd., OKC OK 73114

P.O. Molly Battenfield  
Molly Battenfield  
771 Post Oak Blvd., Suite 330, Houston, TX 77056

P.O. Diane E. Carey  
Diane E. Carey  
771 Post Oak Blvd., Suite 330, Houston, TX 77056

P.O. \_\_\_\_\_

P.O. \_\_\_\_\_

P.O. \_\_\_\_\_

P.O. \_\_\_\_\_

\* Two witnesses to each signature

CEI Bristol Acquisition, L.P., Chaparral Energy, L.L.C.,  
Chaparral Oil, L.L.C.

as to Mark A. Fischer [SEAL]  
Mark A. Fischer, Manager

U.S. Specialty Insurance Company  
as to W. Russell Brown, Jr. [SEAL]  
W. Russell Brown, Jr., Attorney-in-Fact

as to \_\_\_\_\_ [SEAL]

as to \_\_\_\_\_ [SEAL]

DEPARTMENT OF THE INTERIOR  
BUREAU OF INDIAN AFFAIRS  
DEPUTY BUREAU DIRECTOR-TRUST SERVICES  
1849 C STREET, N.W., MS-4639-MOB  
WASHINGTON, D. C. 20240

2-16, 2005

Approved:

Ben K. Burdick  
DEPUTY BUREAU DIRECTOR - TRUST SERVICES



Bond No. B001236

**Important Notice Regarding  
Terrorism Risk Insurance Act of 2002**

In accordance with the Terrorism Risk Insurance Act of 2002 (the "Act"), this disclosure notice is provided for surety bonds on which U.S. Specialty Insurance Company is the issuing surety.

The premium attributable to any bond coverage for "acts of terrorism" as defined in Section 102(1) of the Act is Zero Dollars (\$0.00).

The United States will reimburse the Issuing Sureties for ninety percent (90%) of any covered losses from terrorist acts certified under the Act exceeding the applicable surety deductible.

The actual coverage provided by your bond for acts of terrorism, as is true for all coverages, is limited by the terms, conditions, exclusions, penalties, limits, other provisions of your bond and the underlying contract, any endorsements to the bond and generally applicable rules of law. This Important Notice Regarding Terrorism Insurance Risk Act of 2002 is for informational purposes only and does not create coverage nor become a part or condition of the attached document.

The rest of this page is intentionally left blank.

# POWER OF ATTORNEY

PA001236

(To be used with bonds issued on behalf of U. S. SPECIALTY INSURANCE COMPANY)

Know All Men by These Presents That, U. S. SPECIALTY INSURANCE COMPANY (the "Company"), a corporation duly organized and existing under the laws of the State of Texas, and having its principal office in Houston, Harris County, Texas, does by these presents make, constitute and appoint

Edwin E. Frankel, W. Russell Brown, Jr.

its true and lawful Attorney-in-fact, with full power and authority hereby conferred in its name, place and stead, to execute, acknowledge and deliver any and all bonds, recognizances, undertakings or other instruments or contracts of suretyship to include riders, amendments, and consents of surety, providing the bond penalty does not exceed Three Million Dollars (\$3,000,000) and to bind the Company thereby as fully and to the same extent as if such bonds were signed by the President, sealed with the corporate seal of the Company and duly attested by its Secretary, hereby ratifying and confirming that the said Attorney-in-Fact may do in the premises. Said appointment is made under and by authority of the following resolutions of the Board of Directors of the U. S. Specialty Insurance Company:

Be it Resolved, that the President, any Vice-President, any Assistant Vice-President, any Secretary or any Assistant Secretary shall be and is hereby vested with full power and authority to appoint any one or more suitable persons as Attorney(s)-in-Fact to represent and act for and on behalf of the Company subject to the following provisions:

Attorney-in-Fact may be given full power and authority for and in the name of and on behalf of the Company, to execute, acknowledge and deliver, any and all bonds, recognizances, contracts, agreements or indemnity and other conditional or obligatory undertakings and any and all notices and documents cancelling or terminating the Company's liability thereunder, and any such instruments so executed by any such Attorney-in-Fact shall be binding upon the Company as if signed by the President and sealed and attested by the Corporate Secretary.

Be it Resolved, that the signature of any authorized officer and seal of the Company heretofore or hereafter affixed to any power of attorney or any certificate relating thereto by facsimile, and any power of attorney or certificate bearing facsimile signature or facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is attached. (Adopted by unanimous written consent in lieu of meeting on July 7, 2003.)

In Witness Whereof, U. S. SPECIALTY INSURANCE COMPANY has caused these presents to be signed by its President, and its corporate seal to be hereto affixed this 24<sup>th</sup> of August, 2004.

Corporate Seal

U. S. SPECIALTY INSURANCE COMPANY  
By

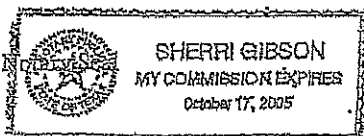
State of Texas

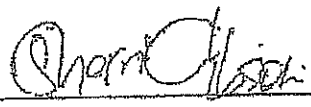
County of Harris

ss:

  
Michael J. Schell, President

On this 24<sup>th</sup> of August before me personally came Michael J. Schell, to me known, who, being by me duly sworn, did depose and say, that he resides in Houston, Texas, that he is President of U. S. SPECIALTY INSURANCE COMPANY, the company described in and which executed the above instrument; that he knows the seal of said Company; that the seal affixed to said instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said Company; and that he signed his name thereto by like order.



  
Notary Public  
My commission expires 10-17-05

I, Christopher L. Martin, Secretary of U. S. SPECIALTY INSURANCE COMPANY, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney, executed by said Company, which is still in full force and effect; furthermore, the resolutions of the Board of Directors, set out in the Power of Attorney are in full force and effect.

In Witness Whereof, I have herewith set my hand and affixed the seal of said Company at Houston, Texas this 31<sup>st</sup> day of October, 2004.

Corporate Seal

  
Christopher L. Martin, Secretary

Bond No. B001236

ASSUMPTION OF LIABILITY RIDER

It is hereby agreed by and between the undersigned principal and surety, in consideration for the additional premium or consideration paid for this rider, if any, and the consent by the United States to terminate the period of liability on surety bond number 886682C, carrying the same principal and Developers Surety and Indemnity Company as surety, the undersigned principal and surety hereby assume any and all liabilities that may be outstanding on surety bond number 886682C, including, but not limited to, the obligation to properly plug and abandon all wells existing, to which surety bond number 886682C, applies and any unpaid rentals or royalties heretofore accruing; provided, however, that this rider shall not act to increase the potential or cumulative liability of the surety above the face amount of the bond to which this rider attaches.

Executed this 31st day of October, 2004

Witnesses

Name of Witness

Thomas C. Lough

701 Cedar Lake Blvd., OKC, OK

✓ Address of Witness

701 Cedar Lake Blvd., OKC, OK

✓ Principal's Address

Name of Witness Molly Battenfield

777 Post Oak Ste 330, Houston, TX 77056

Address of Witness

CEL Bristol Acquisition, L.P.,

Chaparral Energy, L.L.C.,

Chaparral Oil, L.L.C.

Name of Principal

Signature

73114 Mark A. Fischer, Manager

Name and title of person executing for Principal

U.S. Specialty Insurance Company

Name of Surety

Signature

W. Russell Brown, Jr., Attorney-in-Fact

Name and title of person executing for Surety

13403 Northwest Freeway, Houston, TX 77040

Surety's Address



## STATEMENT OF AUTHORIZATION

I, Mark A. Fischer, hereby authorize Kevin Turner to act in my behalf in executing any necessary forms, to include Permit Applications, Compliance Reports, etc., as required by the Environmental Protection Agency Underground Injection Control Program.

Mark A. Fischer

Printed Name

Signature

Manager, Chaparral Energy, LLC

Title

July 16, 2015


Date

### STATEMENT OF AUTHORIZATION

I, Mark A. Fischer, hereby authorize Larry Brinlee to act in my behalf in executing any necessary forms, to include Permit Applications, Compliance Reports, etc., as required by the Environmental Protection Agency Underground Injection Control Program.

Mark A. Fischer

Printed Name

  
Signature

Manager of Chaparral Energy, L.L.C.

Title

September 04, 2012

Date

## CERTIFICATION

I certify under the penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibilities of fine and imprisonment.

Leigh Kykendall  
Name

Engineering Tech Specialist  
Title

***\*If certification is signed by a party other than the injection well owner/operator a written statement of authorization signed by the owner/operator must accompany the application.***



NBU #14-WLE East





NBU #16-W6 North





NBU #16-W6  
South





NBU #10-WW  
West





NBU #16-WL  
Road

